

STATE OF ALASKA  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF FORESTRY  
NORTHERN REGION

FAIRBANKS AREA

FOREST LAND USE PLAN  
FOR A PROPOSED TIMBER SALE  
FINAL REPORT AND BEST INTEREST FINDING

***Iowa Creek Spruce #3***  
***NC-1404-F***

***ADL 418056***

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## **I. INTRODUCTION**

### **A. Purpose**

The purpose of this Forest Land Use Plan (FLUP) is to provide sufficient information for reviewers to ensure that the best interest of the State will be served by the Department of Natural Resources (DNR), Division of Forestry, Fairbanks Area, offering this proposed timber sale. This FLUP deals with site specific considerations of the sale. The boundaries and precise volume of the sale may be refined if and when the sale is developed. Site specific research has been completed on title considerations, land classifications, applicable land management plans, appropriate silvicultural techniques, regulatory and statutory requirements, and physical conditions that apply to the proposed sale area. The proposal is for the harvest of approximately (+/- 30%) 99 acres of land that is predicted to yield approximately (+/- 30%) 2275 CCF of Spruce and (+/- 30%) 601 CCF of Birch. The sale design may be altered to mitigate potential conflicts. It will be the responsibility of the Forester-In-Charge to ensure that any purchaser of this sale harvests timber per the sale design and sale contract provisions and adheres to Alaska Forest Resources and Practices Act (AFRPA) best management practices.

The public is invited to comment on any aspect of this proposed timber sale with regards to the Preliminary Finding and Decision (AS 38.05.035). Comments should be mailed to the Division of Forestry, 3700 Airport Way, Fairbanks, Alaska 99709 or by email to [brian.young@alaska.gov](mailto:brian.young@alaska.gov). Comments must be received at the Division of Forestry no later than **April 27, 2012** in order to be considered in the Final Decision of whether the sale will be held in whole or in part. To be eligible to appeal the final decision, a person must have provided written comment by **April 27, 2012**.

### **B. Five-Year Sale Schedule**

The general area and timber type that this proposed sale occupies has been shown as a potential sale area in the current Five-Year Schedule of Timber Sales (FYSTS) for Fiscal Years 20012-2016 as required by AS 38.05.113. It has been listed in previous schedules.

### **C. Location**

The proposed sale is located 15 miles northeast of Fairbanks within the Fairbanks North Star Borough. Access to the site is via 10 mile Chena Hot Springs Road from Adventure Road. At 0.5 mile Adventure Road, a winter road of approximately 3.5 miles leads to the sale location. The proposed sale area is located within Section 1, Township 1N, Range 2E; section 6, Township 1N, Range 3E; and section 36, Township 2N, Range 3E of the Fairbanks Meridian. The sale area is shown on the attached map and is within the United States Geological Survey 1:63,360 Quadrangle map titled Fairbanks D-1.

### **D. Title, Classification and Other Active or Pending Interests**

The acquisition for the land upon which the sale is proposed is based on General Selection 1131. The title was transferred by Patent 50-73-0016. There are no title restrictions on the area. The primary land classification for the area is Forestry per

Classification Order NC-82-065. The proposed sale area is within Unit 4D of the Tanana Valley State Forest (TVSF).

#### **E. General Timber Sale Program Objectives**

##### **1. Develop the State's Renewable Resources**

To follow the DNR's constitutional mandate to encourage the development of the State's renewable resources, making them available for maximum use consistent with the public interest. Sustain and promote a healthy, long-term timber industry in the State, through providing a secure source of timber for harvest that produces raw materials for local manufacturing plants when practical while protecting other resources such as fish and wildlife.

##### **2. Improve the State's Economy**

To help the State's economy by providing royalties to the State in the form of stumpage receipts, as well as contributions to local economies through wages, purchases, jobs, and business.

##### **3. Improve Forest Health**

In order to improve forest growth and vigor we propose harvesting and replacement of over mature stands and stands with declining vigor with new healthy regenerating stands, while protecting and maintaining other resource values. The actions authorized under this decision will follow the constitutional mandate of sustained yield and shall adhere to multiple use management as described in the TVSF Management Plan.

##### **Improve Wildlife Habitat**

Meet the statutory wildlife management objective for the TVSF (AS 41.17.400(e)) that provides for the production of wildlife for a high level of sustained yield human use through habitat improvement techniques, while allowing for timber management and other beneficial uses of public land and resources.

## **II. LEGAL AUTHORITY**

The Division of Forestry is taking this action under the authority of AS 38.05.035 (e) (Best Interest Finding); AS 38.05.110-120 (Alaska Land Act Statutes); 11 AAC 71 (Timber Sale Statutes and Regulations); AS 41.17.010-.950 and 11 AAC 95 (Forest Resources and Practices Statutes and Regulations).

## **III. ADMINISTRATIVE RECORD**

The case file ADL 418056 and the TVSF Management Plan constitute the administrative record for this finding.

## **IV. DISCUSSION OF ISSUES**

### **A. Physical Characteristic of the Sale Area**

#### **1. Topography**

The unit is on a moderately south facing slope above Iowa Creek which is a tributary of Chena River. The elevation of this site ranges from approximately 750 – 1000 feet.

## **2. Soils**

Soils in the sale area are classified as a Fairbanks series. Fairbanks series soils are relatively productive soils with an approximate site index rating of 82 for spruce.

## **3. Water bodies**

This site is approximately 0.2 miles north of Iowa Creek. The existing winter road crosses this creek and current operators working in this area have been required to obtain permits by the Alaska Department of Fish and Game (ADF&G; Title 16). This will also be the case for this proposed sale. The sale area presents no obstacles that would prevent implementation of the best management practices of the AFRPA to maintain water quality.

## **4. Stand Conditions**

The timber stand and proposed harvest unit consists primarily of spruce with some birch. The approximate age of the spruce is >100 years while the birch is approximately 100 years old. The size class of the spruce consists primarily of saw timber with an estimated 10% defect in the stand. The spruce which is  $\geq 9''$  diameter breast height (dbh) can be found at approximately 72 trees/acre, with an average dbh of 14.19", an average height of 89', and a total basal area of 84.29 square feet/acre. The birch component which is  $\geq 6''$  dbh comprises approximately 45 trees/acre and has an average dbh of 11.22" with an average height of 62'.

## **B. Historic and Current Land Use**

The historic uses of land in the general area have been for logging, hunting, trapping, mining, and general trail use. The current uses of the area include general recreation, wood cutting, hunting, and trapping.

## **C. Wildlife Habitat**

Wildlife typical of the interior can be found here and during ground reconnaissance moose sign were observed. No critical wildlife habitat has been identified within this area (TVSF Management Plan) nor did any become apparent during ground reconnaissance.

The forestry treatments proposed for this stand are projected to enhance habitat conditions for ruffed grouse, moose, voles, hares, and ultimately, lynx, marten and fox. In the past, ADF&G Division of Wildlife Conservation have recommended managing for as much diversity as possible when prescribing harvest unit size, shape and position to mimic the results of wildfire or other stand replacement phases such as insect outbreaks or flood events. To accomplish these objectives snags will be retained to provide late-successional wildlife habitat for hole nesting birds, woodpeckers, small mammals, and other species requiring perching habitat. The unit will be laid out with an uneven edge, along and between timber types. This will create varied edge effect beneficial to many wildlife species.

## **D. Fisheries and Water Quality**

Best management practices will be implemented to ensure water quality standards in all water courses. During the review of the FY 2012-2016 FYSTS neither ADF&G

nor Division of Habitat had any particular fish or wildlife concerns with the proposed road or harvest area. There is no expectation that this harvest will have negative impacts on Iowa Creek or any of its tributaries.

This unit will be harvested during the winter months so damage to surface soil will be minimized. Erosion will be mitigated by backfilling skid trails with debris and through the installation of water bars if deemed necessary.

Winter road construction will be necessary for this sale and some maintenance of the existing road will be required. Berming of small black spruce trees will not be permitted across water features. Operations will be suspended during thaw periods and water bars will be installed if necessary.

**E. Subsistence**

The tract has not been designated as a subsistence zone. The proposed sale of timber is anticipated to have no deleterious effects on subsistence activities. Subsistence activities of fishing, trapping, hunting, gathering of berries and other non timber forest products may occur on State owned lands.

**F. Recreation and Tourism**

Recreation use of this area is moderate but not inconsistent with a timber sale. Primarily it consists of hunting and trapping activities as well as some recreational snow machining, ATV riding, and dogmushing. Where trail use utilizes existing winter roads exists, access will be maintained by leaving sufficient snow cover on the roads to enable continued winter recreational use. Cross trails will be kept free of either snow or brush filled berms.

**G. Scenic Resources**

The sale is located north of the Chena River and Chena Hot Springs road but, will not be visible from either. It may be visible from nearby winter trails. Leave trees and residuals will somewhat obscure the harvest area and help blend the border with the existing landscape.

**H. Cultural Resources**

The TVSF Management Plan does not list cultural sites in the same management unit as this proposed harvest. The State Office of History and Archaeology (OHA) do not list any sites on its inventory and had no comment during its review of the FY 2012-2016 FYSTS. During the course of activities associated with this timber sale, cultural and/or paleontological resources may be inadvertently discovered. Should such discovery occur, these sites shall be protected from further disturbance and OHA contacted immediately so that compliance with state laws governing cultural resources may begin.

Under the Alaska Historic Preservation Act (AS 41.35), all burials on state land are protected. If burials or human remains are found, all land altering activities that would disturb the burial or remains shall cease and measures taken to protect it in

place. OHA and a law enforcement officer will be notified immediately to ensure that proper procedures for dealing with human remains are followed.

## **I. Sustained Yield and Allowable Cut**

The Alaska Forest Resources and Practices Act (AS 41.17.060 (c)) and Article VIII Sec. 4 of the State Constitution require that the State forest land be managed on a sustained yield basis. Sustained yield is defined in the Alaska Forest Resources and Practices Act (AS 41.17.950(25)):

“Sustained Yield” means the achievement and maintenance in perpetuity of a high level annual or regular periodic output of the various renewable resources of forest land and water without significant impairment of the productivity of the land and water, but does not require that timber be harvested in a non-declining yield basis over a rotation period.

The Annual Allowable Cut (AAC) is the amount that can be harvested from forest land managed for forestry purposes in a year under sustained yield management. The AAC in the Fairbanks Area is based on a ten-year average as determined by the Parsons and Associates, Inc. report titled “Tanana State Forestry Lands Periodic Sustained Yield Analysis”. This sale complies with sustained yield/allowable cut principles outlined in the Fairbanks Area Five-Year Schedule of Timber Sales for FY 20012-2016. The AAC for the Fairbanks Management Area is approximately 6,260 acres. The AAC will not be exceeded for this proposed sale.

## **J. Silvicultural Prescription**

### **1. Stand Silvics**

The merchantable species of trees here are white spruce and birch. Data and research on regeneration and growth characteristics of these species are compiled within the Resource Analysis of the Tanana Valley State Forest (TVSF) Management Plan. The harvest and reforestations systems available in Interior Alaska are also reviewed and listed in the Resource Analysis. The results of the public and agency discussions for harvest and reforestation are discussed in the TVSF Management Plan. Silvicultural harvest systems that facilitate even-aged (natural) management are generally preferred. They mimic the ecological impact of wildfire and other disturbances and result in the greatest increase in site productivity. Even-aged management is normally accomplished through clear cuts, patch cuts and heavy partial cuts (such as seed tree or shelterwood systems), which opens up the site to maximum solar gain. This results in the greatest production of both young hardwood that is important to wildlife and the spruce understory valuable years later as timber. Even-aged management techniques are utilized to provide young, vigorously growing stands in juxtaposition to older, undisturbed stands. Such placement of harvest units can optimize natural seedling and the edge effect. The proposed sale is a seed tree partial cut with spruce reserves.

### **2. Specific Management Objectives**

The overall goal for this stand is to harvest the mature spruce before forest health issues such as stem rot and insect damage increase. By opening the site up to

maximize solar gain, new regeneration will occur ultimately leading to stand conditions equal or better to current volumes. This site is comprised primarily of saw timber spruce and pole size birch. It is expected with the treatments proposed that the birch component will initially increase after harvest followed by white spruce in later years. It is reasonable to assume that these objectives will be realized under the recommended prescription with some scarification and supplemental planting of white spruce if necessary.

### **3. Harvest Methods**

The sale will be harvested by a seed tree partial cut with reserves silvicultural system. All spruce of 9" dbh or greater and birch of 6" dbh or greater will be removed. Snags and spruce less than 9" will not be cut. Residual spruce will be protected from damage during harvest operations. Harvesting will be by the whole tree yarding system. Slash disposal at the landings will be by burning and or by salvage for fuel wood use.

### **4. Regeneration**

Birch can regenerate vegetatively or by seed and white spruce regenerates only by seed. White spruce trees generally produce some level of seed crop every three to five years and large seed crops every five to seven years. Adjacent sites are composed of mixed birch and spruce stands that will provide seed to this unit in addition to the reserves. A regeneration survey will be conducted three years after the harvest. If the survey indicates inadequately stocked areas greater than ½ acre or totaling 6.2 acres than hand plating of white spruce seedlings will be performed on non-stocked areas. The goal for regeneration is to achieve a minimum of 450 evenly distributed trees per acre.

### **K. Transportation**

The planned access to the proposed sale is via Adventure road, an all season road, located on the north side of Chena Hot Springs road located between mileposts 10 and 11. Travel approximately 0.5 miles north on Adventure road and then turn east on the existing winter road. Travel approximately 3.5 miles north on the winter road. The 3.5 miles of existing winter road will need to be maintained to the winter road standards set out in the AFRPA.

### **L. Erosion**

There are two primary soil erosion concerns for this area; surface erosion and mass wasting. Road construction and poor maintenance of roads is the primary cause of surface erosion. To avoid this, debris will need to be placed back onto the skid trails and water bars will be installed if deemed necessary. Harvesting will be suspended during periods of thawing soil conditions in order to assure minimal soil disturbance. The location of skid trails will be placed to optimize skidding distances and provide for adequate landing areas. The slope angle within the area of the proposed timber are not steep enough to warrant a concern for either mass wasting or debris avalanches to occur.

### **M. Mining**

This sub-unit of the TVSF has historically seen moderate levels of mining activity; however, there are no current mining claims within the sale area. More detailed information on subsurface resource use is found in the TVSF Management Plan. Other than providing access, and sharing some of the same access roads, this sale will have no impact on the potential mining resources or mining activity in this area.

**N. Materials**

No rock materials will be required for the construction of access roads.

**O. Economics**

In addition to generating royalties to the State's general fund, the proposed sale will create economic benefits to the Fairbanks North Star Borough and to other locations in Alaska. The Borough business community will receive direct economic benefits from providing support services for the operators through sales of fuel, food, housing, medical and miscellaneous supplies. The residents of the Borough will receive an indirect benefit through taxes paid to cities and the Borough by the operator and employees during the course of the timber harvest operation.

The sale is expected to benefit the local economy by providing jobs. It will have a positive impact on local employment by generating numerous man-hours of work associated with the harvest and transportation of wood products from this sale.

**V. MARKET CONDITIONS**

Interior Alaska has a growing demand for biomass and firewood and a sustainable market for saw timber. Heating oil continues to be more costly in the interior than the national average therefore residents are looking for an alternative and the only affordable one is wood. Local businesses are currently producing wood pellets as an alternative to traditional firewood. This market addresses an ongoing air quality issue in the Fairbanks area because these manufactured pellets produce almost no emissions. As this market continues to grow, the demand for material will increase. Other businesses are also looking into the use of biomass as a feedstock for producing electricity and heating alternatives in rural Alaska.

With improvements in wood stove technology for reducing emissions, firewood is also a viable alternative to high cost heating oil. The demand for firewood has steadily increased in the past few years and will likely continue to increase. Local suppliers of firewood continue to have a demand for accessible timber sales to deliver their product.

Residential construction and commercial operations throughout Alaska still need sawn products to support their operations. Local businesses that produce these products continue to pay for the delivered material.

These three markets create jobs in the forest products industry. Loggers, log truck drivers, commercial firewood cutters and mill workers all benefit from a sustainable timber market. This sale will provide the material needed to sustain these industries. As the economy continues to rebound there will be more demand for the products that this sector of the labor force provides.

## VI. ALTERNATIVE ACTIONS

There are four possible alternatives to consider for this sale. A discussion of each of the four alternatives follows:

1. **To continue the sale(s) as proposed.**

This alternative meets the objectives of the Five-Year Schedule of Timber Sales and DNR'S constitutional mandate. It also meets the silvicultural objective of improving forest vigor, provides for a value-added end product and creates additional jobs in Alaska due to the combination of road building, logging, and trucking. This alternative also complies with the management objectives of the TVSF Management Plan for Unit 4D.

2. **To modify the sale(s) by making them smaller or larger.**

The proposed sale unit is a logical setting for typical commercial logging equipment in Interior Alaska. The size of the sale is designed to be large enough to be economically viable considering access development and mobilization costs and distance to processing facilities. Sales of this size are appropriately balanced to maintain other resource values as well as provide economic benefits to the Tanana Valley.

3. **Defer the sale of this timber to a later date.**

Deferring harvest to a later date would fail to meet many of the objectives of the sale program. One of the main objectives is to make State-owned timber consistently available to the timber industry.

4. **Do not offer this timber for sale.**

This alternative would result in not meeting any of the objectives outlined for this management action. Utilization of the forest resource would not be achieved. There would be no significant contribution to the State and local economies. This alternative would delay the management objectives planned for the area, deny making a source of raw materials available to the local wood products industry, and would delay the harvest of mature trees, prior to the onset of disease or insect infestation. Decay and infestation of sawtimber spruce results in the loss of economic value.

## VII. FINAL FINDING AND DECISION

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF FORESTRY  
BEST INTEREST FINDING  
NC-1404, "Iowa Creek Spruce #3"

I. **Formal review and response to objections, comments, or alternatives (summarized):**

The Agency and Public review of the Forest Land Use Plan (FLUP) started on March 23, 2012 and ended on April 27, 2012. Advertisement was published in the Fairbanks Daily News-Miner on March 25, 2012 and April 1, 2012. The FLUP review advertisement was

posted on the Department of Natural Resources, Division of Forestry web site on March 25, 2012. In addition, 38 requests for comments were either e-mailed or sent to various agencies, organizations and members of the public. No individual public comments were received, either for or against this particular proposed sale.

The Division of Agriculture, Division of Mining Land and Water, Alaska Dept. of Environmental Conservation, and the Office of History and Archaeology had no comment. The Alaska Department of Fish and Game (ADF&G) commented on the requirement of a Fish Habitat Permit (Title 16) for winter ice crossings of resident fish bearing water bodies. This comment has been included in final FLUP.

## II. Final Finding and Decision:

The purpose of this decision is to determine if the Department of Natural Resources, Division of Forestry, shall make available 99 acres of spruce sawtimber and birch fuelwood located in Section 1, Township 1N, Range 2E; section 6, Township 1N, Range 3E; and section 36, Township 2N, Range 3E Fairbanks Meridian, Alaska.

1. The sale meets the objectives of the Five-Year Schedule of Timber Sales and DNR'S constitutional mandate.
2. The sale meets the silvicultural objective of improving forest vigor, provides for a value-added end product and creates additional jobs in Alaska due to the combination of road building, logging, and trucking.
3. The sale complies with the management objectives of the TVSF Management Plan for Unit 4D, which allows for commercial and personal use timber production while managing for dispersed and developed recreation.
4. Sale layout and design adhere with Region-III Riparian Standards. This sale is consistent with all statutes and plans.
5. The sale has undergone agency and public review and concerns have been resolved in the preparation, documentation and design of the sale.

The finding presented above has been reviewed and considered. The case file has been found to be complete. The requirements of all applicable statutes have been satisfied. Therefore, it is the finding of the Director that it **is in the best interest of the state** to approve this action under the authority of AS 38.05.035(e) and AS 38.05.110-120.

A person affected by this decision who provided timely written comment may appeal it, in accordance with 11 AAC 71.002. Any appeal must be received by June 13, 2012, and may be mailed or delivered to Dan Sullivan, Commissioner, Department of Natural Resources, 550 W. 7th Avenue, Suite 1400, Anchorage, Alaska 99501; faxed to 1-907-269-8918, or sent by electronic mail to [dnr.appeals@alaska.gov](mailto:dnr.appeals@alaska.gov). If no appeal is filed by that date, this decision goes into effect as a final order and decision on June 14, 2012. An eligible person must first appeal this decision in accordance with 11 AAC 71.002 before appealing this decision to Superior Court. A copy of 11 AAC 71.002 may be obtained from any regional information office of the Department of Natural Resources. It is the Division of Forestry's intent to offer this timber sale by auction on or after June 14, 2012. If no qualified bid is

received within the time specified during the auction, the Division of Forestry may offer the sale for purchase over-the-counter without re-advertisement for not less than the advertised minimum bid.

Prepared and Recommended by: Brian Young, Resource Management Forester

Concur ( X )

Do Not Concur ( )

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Kathryn Pyne  
Fairbanks Area Forester

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5/2/12  
(Date)